

Product datasheet for **TR513130**

Ipmk Mouse shRNA Plasmid (Locus ID 69718)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Ipmk Mouse shRNA Plasmid (Locus ID 69718)
Locus ID:	69718
Synonyms:	2410017C19Rik; AA408208; Impk
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Ipmk - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 69718). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC052463 , NM_001347191 , NM_027184 , NM_027184.1 , NM_027184.2
UniProt ID:	Q7TT16
Summary:	Inositol phosphate kinase with a broad substrate specificity. Phosphorylates inositol 1,4,5-trisphosphate (Ins(1,4,5)P ₃) first to inositol 1,3,4,5-tetrakisphosphate and then to inositol 1,3,4,5,6-pentakisphosphate (Ins(1,3,4,5,6)P ₅) (PubMed:15939867). Phosphorylates inositol 1,3,4,6-tetrakisphosphate (Ins(1,3,4,6)P ₄). Phosphorylates glycerol-3-phospho-1D-myo-inositol 4,5-bisphosphate to glycerol-3-phospho-1D-myo-inositol 3,4,5-trisphosphate. Plays an important role in MLKL-mediated necroptosis via its role in the biosynthesis of inositol pentakisphosphate (InsP ₅) and inositol hexakisphosphate (InsP ₆). Binding of these highly phosphorylated inositol phosphates to MLKL mediates the release of an N-terminal auto-inhibitory region, leading to activation of the kinase. Essential for activated phospho-MLKL to oligomerize and localize to the cell membrane during necroptosis (By similarity). Required for normal embryonic development, probably via its role in the biosynthesis of inositol 1,3,4,5,6-pentakisphosphate (Ins(1,3,4,5,6)P ₅) and inositol hexakisphosphate (InsP ₆) (PubMed:15939867).[UniProtKB/Swiss-Prot Function]
shRNA Design:	These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com . If you need a special design or shRNA sequence, please utilize our custom shRNA service .



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**Performance
Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).